AMENDMENTS TO THE CLAIMS

1. (Currently amended) Core-shell nanoparticles comprising:

(a) a core which comprises a water insoluble polymer or copolymer, and

(b) a shell which comprises a hydrophilic polymer or copolymer;

said nanoparticles having a number average particle diameter measured by scanning electron microscopy of 500 nm or less, and said nanoparticles being obtainable by emulsion polymerization of a mixture comprising, in an aqueous solution, at least one water-insoluble styrenic, acrylic or methacrylic monomer and:

(i) a monomer of formula (I):

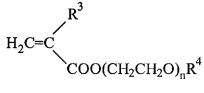
(I)

wherein

R^1 represents hydrogen or methyl, and

R^2 represents -COOAOH, -COO-A-NR^9R^{10} or -COO-A-$N^+R^9R^{10}R^{11}$ X^-, in which A represents $C_{1\text{-}20}$ alkylene, R^9, $R^{10}$and R^{11} each independently represent hydrogen or $C_{1\text{-}20}$ alkyl and X represents halogen, sulphate, sulphonate or perchlorate, and

a water-soluble polymer of formula (II)



(II)

wherein

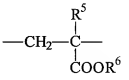
R^3 represents hydrogen or methyl,

R^4 represents hydrogen or $C_{1\text{-}20}$ alkyl, and

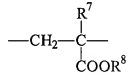
n is an integer such that the polymer of formula (I) has a number-average molecular weight of at

least 1000; or

(ii) a hydrophilic copolymer which comprises repeating units of formulae (III) and (IV):



(III)



(IV)

wherein

R^5 and R^7 each independently represent hydrogen or methyl,

R^6 represents hydrogen, -A-NR^9R^{10} or -A-$N^+R^9R^{10}R^{11}$ X^-, in which A represents C_{1-20} alkylene, R^9, $R^{10}$and R^{11} each independently represent hydrogen or C_{1-20} alkyl and X represents halogen, sulphate, sulphonate or perchlorate and

R^8 represents C_{1-10} alkyl.

2. (Original) Nanoparticles according to claim 1 wherein the core comprises poly(C_{1-10} alkyl (meth)acrylate), polystyrene or a copolymer formed from monomers which are acrylic, methacrylic or styrenic monomers.

3. (Previously presented) Nanoparticles according to claim 1 wherein the core comprises poly(methyl methacrylate).

4. (Previously presented) Nanoparticles according to claim 1 which are obtainable by emulsion polymerization of methyl methacrylate in an aqueous solution comprising poly(ethylene glycol) methyl ether methacrylate and 2-(dimethyloctyl) ammonium ethyl methacrylate bromine.

5. (Previously presented) Nanoparticles according to claim 1 which are obtainable by emulsion polymerization of methyl methacrylate in an aqueous solution comprising a copolymer of methacrylic acid and ethyl acrylate.

6. (Previously presented) Nanoparticles according to claim 1 which are obtainable by emulsion polymerization of methyl methacrylate in an aqueous solution comprising a copolymer of 2-(dimethylamino)ethyl methacrylate and C_{1-6} alkyl methacrylate.

7. (Currently Amended) Nanoparticles according to claim 1 which have a number-average particle diameter measured by scanning electron microscopy of from 50 to ~~1,000~~ 300 nm.

8. (Previously presented) Nanoparticles according to claim 1 which further comprise a fluorescent chromophore.

9. (Withdrawn) A process for preparing nanoparticles according to claim 1, said process comprising emulsion polymerization of a water-insoluble monomer in an aqueous solution comprising:

(i) a monomer of formula (I) and a polymer of formula (II), or

(ii) a hydrophilic copolymer which comprises repeating units of formulae (III) and (IV).

10. (Previously presented) Nanoparticles according to claim 1 which further comprise at least one pharmacologically active agent adsorbed at the surface of the nanoparticles.

11. (Original) Nanoparticles according to claim 10 wherein the pharmacologically active agent is a disease-associated antigen.

12. (Original) Nanoparticles according to claim 11 wherein the antigen is a

deoxyribonucleic acid, ribonucleic acid, oligodeoxynucleotide, oligonucleotide or protein.

13. (Previously presented) Nanoparticles according to claim 11 wherein the antigen is a microbial antigen or a cancer-associated antigen.

14. (Previously presented) Nanoparticles according to claim 11 wherein the antigen is a human immunodeficiency virus-1 (HIV-1) antigen.

15. (Original) Nanoparticles according to claim 14 wherein the antigen is HIV-1 Tat protein or an immunogenic fragment thereof.

16. (Withdrawn) A process for preparing nanoparticles which comprise at least one pharmacologically active agent adsorbed at the surface of the nanoparticles, said process comprising adsorbing a pharmacologically active agent at the surface of nanoparticles according to claim 1.

17. (Withdrawn) A pharmaceutical composition comprising nanoparticles according to claim 10-and a pharmaceutically acceptable excipient.

18. (Withdrawn) A method of diagnosing, treating or preventing a condition in a subject said method comprising administering an effective amount of nanoparticles according to claim 10 to a subject in need of such treatment.

19. (Withdrawn) A method according to claim 18, wherein the pharmacologically active agent is a disease-associated antigen and the nanoparticles are administered to the subject to generate an immune response in a subject.

20. (Withdrawn) A method according to claim 18, wherein the antigen is a human immunodeficiency virus-1 (HIV-1) antigen and the nanoparticles are administered to the subject

to prevent or treat HIV infection or AIDS.

21-23. (Canceled).